

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01271

MEASUREMENT, PAYMENT, AND CONTRACT COST BREAKDOWN

PART 1 GENERAL

1.1 MEASUREMENT

1.1.1 Lump Sum

1.1.2 Cubic Meter (CM)

1.2 PAYMENT

PART 2 PRODUCTS - Not Applicable

PART 3 EXECUTION

3.1 CONTRACT COST BREAKDOWN

-- End of Section Table of Contents --

FY01 Replacement Family Housing

FTW230

SECTION 01271

MEASUREMENT, PAYMENT, AND CONTRACT COST BREAKDOWN

PART 1 GENERAL

1.1 MEASUREMENT

1.1.1 Lump Sum

Each lump sum item will be measured for payment as a complete item.

1.1.2 Cubic Meter (CM)

Unless otherwise specified, measurement of items by length will be based on horizontal or vertical measurements, as applicable, taken after the item of work or portion thereof is completed.

1.2 PAYMENT

Payment will be made at the contract unit price. The price for each item shall constitute full compensation for furnishing all labor, equipment, and materials, and performing all operations necessary to construct and complete the work in accordance with the specifications and drawings. Payment shall be considered as full compensation, notwithstanding that minor features of the work to complete the item may not be mentioned. Work paid for under one item will not be paid for under any other item.

PART 2 PRODUCTS - Not Applicable

PART 3 EXECUTION

3.1 CONTRACT COST BREAKDOWN

The Contractor shall furnish within 30 days after the date of Notice to Proceed, and prior to the submission of its first partial payment estimate, a breakdown of its lump-sum pay item or items which will be reviewed by the Contracting Officer as to propriety of distribution of the total cost to the various accounts. Any unbalanced items as between early and late payment items or other discrepancies will be revised by the Contracting Officer to agree with a reasonable cost of the work included in the various items. This contract cost breakdown will then be utilized as the basis for progress payments to the Contractor.

-- End of Section --

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

- 1.1 SUBMITTAL IDENTIFICATION
- 1.2 SUBMITTAL CLASSIFICATION
  - 1.2.1 Government Approved
  - 1.2.2 Information Only
- 1.3 APPROVED SUBMITTALS
- 1.4 DISAPPROVED SUBMITTALS
- 1.5 WITHHOLDING OF PAYMENT

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

- 3.1 GENERAL
- 3.2 SUBMITTAL REGISTER (ENG FORM 4288)
- 3.3 SCHEDULING
- 3.4 TRANSMITTAL FORM (ENG FORM 4025)
- 3.5 SUBMITTAL PROCEDURE
  - 3.5.1 Procedures
  - 3.5.2 Deviations
- 3.6 CONTROL OF SUBMITTALS
- 3.7 GOVERNMENT APPROVED SUBMITTALS
- 3.8 INFORMATION ONLY SUBMITTALS
- 3.9 STAMPS
- 3.10 ATTACHMENTS

-- End of Section Table of Contents --

FY01 Replacement Family Housing

FTW230

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-13 Certificates

SD-14 Samples

SD-18 Records

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting

FY01 Replacement Family Housing

FTW230

materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

#### 1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

#### 1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

#### PART 2 PRODUCTS (Not Applicable)

#### PART 3 EXECUTION

##### 3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and the Designer of Record (DOR), each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

##### 3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the submittal register files, containing the computerized ENG Form 4288 and instructions on the use of the files. These submittal register files will be furnished on a separate diskette. Columns "d" through "r" have been

FY01 Replacement Family Housing

FTW230

completed by the Government; the Contractor shall complete columns "a" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 14 calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

### 3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals. An additional 14 calendar days shall be allowed and shown on the register for review and approval of submittals for refrigeration and HVAC control systems.

### 3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

### 3.5 SUBMITTAL PROCEDURE

Submittals shall be made as follows:

#### 3.5.1 Procedures

Samples for testing shall be delivered in accordance with SECTION 01451 CONTRACTOR QUALITY CONTROL. All other submittals shall be delivered to the Contracting Officer.

#### 3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

### 3.6 CONTROL OF SUBMITTALS

FY01 Replacement Family Housing

FTW230

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

### 3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Four (4) copies of the submittal will be retained by the Contracting Officer and one (1) copy of the submittal will be returned to the Contractor.

### 3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

### 3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

FY01 Replacement Family Housing

FTW230

CONTRACTOR	
(Firm Name)	
_____	Approved
_____ Approved with corrections as noted on submittal data and/or attached sheets(s).	
SIGNATURE: _____	
TITLE: _____	
DATE: _____	

3.10 ATTACHMENTS

ENG FORM 4025  
ENG FORM 4288



**SUBMITTAL REGISTER**  
(ER 415 1-10)

CONTRACT

### TITLE AND LOCATION

CONTRACTOR

SPECIFICATION SECTION

## **FY01 Replacement Family Housing**

**01015**

[illegible]

**TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR  
MANUFACTURER'S CERTIFICATES OF COMPLIANCE**  
(Read instructions on the reverse side prior to initiating this form)

DATE

TRANSMITTAL NO.

**SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initiated by the contractor)**

CONTRACT NO.

FROM:

TO:

CHECK ONE:

☐ THIS IS A NEW TRANSMITTAL  
☐ THIS IS A RESUBMITTAL OF  
TRANSMITTAL

PROJECT TITLE AND LOCATION

SPECIFICATION SEC. NO. (Cover only one section with  
each transmittal)

CHECK ONE: THIS TRANSMITTAL IS FOR

GOVT. ☒ FEDERAL ☐ STATE ☐ LOCAL

DESCRIPTION OF ITEM SUBMITTED  
(Type site, model number/etc.)

MFG OR CONTR.  
CAT. CURVE  
DRAWING OR  
BROCHURE NO.  
(See instruction no. 2)

NO.  
OF  
COPIES

CONTRACT REFERENCE  
DOCUMENT

SPEC.  
PARA. NO.  
a.

DRAWING  
SHEET NO.  
f.

FOR  
CONTRACTOR  
USE CODE

VARIATION  
(See  
instruction  
No. 3)

FOR  
CE  
USE  
CODE

REMARKS

I certify that the above submitted items have been reviewed  
in detail and are correct and in strict conformance with the  
contract drawings and specifications except as other wise stated.

NAME AND SIGNATURE OF CONTRACTOR

**SECTION II - APPROVAL ACTION**

NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY

DATE

ENCLOSURES RETURNED (List by Item No.)

ENG FORM 4025-R, MAR 95

ER 4151-10

EDITION OF SEP 93 IS OBSOLETE.

SHEET 17

(Prepared: COMP-23)

## INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications-also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

### THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A	--	Approved as submitted.	E	--	Disapproved (See attached).
B	--	Approved, except as noted on drawings.	F	--	Receipt acknowledged.
C	--	Approved, except as noted on drawings. Refer to attached sheet resubmission required.	FX	--	Receipt acknowledged, does not comply as noted with contract requirements.
D	--	Will be returned by separate correspondence.	G	--	Other (Specify)

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

SECTION 01451

--End of Section--

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01411

ENVIRONMENT PROTECTION

PART 1 GENERAL

- 1.1 SCOPE
- 1.2 APPLICABLE REGULATIONS
- 1.3 LAND RESOURCES
  - 1.3.1 General
  - 1.3.2 Protection of Landscape
- 1.4 AIR POLLUTION
- 1.5 NOTIFICATION
- 1.6 SUBCONTRACTORS
- 1.7 IMPLEMENTATION
- 1.8 MAINTENANCE OF POLLUTION CONTROL FACILITIES

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

-- End of Section Table of Contents --

FY01 Replacement Family Housing

FTW230

## SECTION 01411

### ENVIRONMENT PROTECTION

#### PART 1 GENERAL

##### 1.1 SCOPE

This section covers protection of environmental resources exposed to potential effects from construction activities.

##### 1.2 APPLICABLE REGULATIONS

In order to prevent, and provide for abatement and control of, environmental pollution arising from the construction activities of the Contractor or its subcontractors in the performance of the work, they shall comply with applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, as well as applicable provisions of the Safety and Health Requirements Manual referenced in paragraph Accident Prevention of the contract clauses.

##### 1.3 LAND RESOURCES

###### 1.3.1 General

For the purposes of this section, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and recreational purposes. Land resources within the project boundaries and outside the limits of the work shall be preserved in their undisturbed condition or be restored to a condition after completion of construction that will appear natural and not detract from the appearance of the area. Insofar as possible, the Contractor shall confine its construction activities to areas defined by the plans or specifications. The following requirements are in addition to those specified in paragraph Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements; Operations and Storage Areas; and Cleaning Up, of the Contract Clauses.

###### 1.3.2 Protection of Landscape

The Contractor shall not deface, injure, or destroy trees, shrubs, or other landscaping, or remove or cut same without permission from the Contracting Officer. The Contractor shall minimize impacts to the existing landscape in selecting sites for field offices and storage areas.

##### 1.4 AIR POLLUTION

FY01 Replacement Family Housing

FTW230

The Contractor shall maintain excavations, embankments, stockpiles, haul roads, permanent and temporary access roads, and all other work areas within or outside the project boundaries free from dust, which would cause a hazard or nuisance. Sprinkling or similar methods shall be employed to control dust. If sprinkling is used, the Contractor shall retain sufficient, suitable equipment at the site and repeat applications at such intervals as to keep all parts of the disturbed area damp at all times 24-hours/day, 7-days/week. As a minimum, one water truck and one street sweeper shall be on-site at all times except when freezing weather precludes sprinkling. Dust control shall be performed as the work proceeds. There shall be no visible dust coming off any portion of the work site at any time, or off any vehicle hauling material for the Contractor. In addition, the Contractor shall ensure that no material of any type will fall off any vehicle while in transit. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. No separate or direct payment will be made for dust control and the cost thereof shall be considered incidental to and included in the contract price.

#### 1.5 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any noncompliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or its authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop order shall be made the subject of a claim of extension of time or for excess costs or damages by the Contractor.

#### 1.6 SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the prime Contractor.

#### 1.7 IMPLEMENTATION

Prior to commencement of work, the Contractor shall:

- a. Submit in writing its proposals for implementing this section for environmental pollution control.
- b. Meet with representatives of the Contracting Officer to develop mutual understandings relative to compliance with this provision and administration of the environmental pollution control program.

#### 1.8 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During construction, the Contractor shall conduct frequent training courses for its maintenance

FY01 Replacement Family Housing

FTW230

personnel, covering methods of detecting pollution, familiarity with pollution standards, and installation and care of vegetation covers, plants and other facilities to prevent and correct pollution.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

-- End of Section --

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01415

METRIC MEASUREMENTS

- 1.1 REFERENCES
- 1.2 GENERAL
- 1.3 USE OF MEASUREMENTS
  - 1.3.1 Hard Metric
  - 1.3.2 Soft Metric
  - 1.3.3 Neutral
- 1.4 COORDINATION
- 1.5 RELATIONSHIP TO SUBMITTALS

-- End of Section Table of Contents --



FY01 Replacement Family Housing

FTW230

## SECTION 01415

## METRIC MEASUREMENTS

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM E 380	(1993) Practice for Use of the International System of Units (SI)
ASTM E 621	(1994) Practice for Use of Metric (SI) Units in Building Design and Construction

## 1.2 GENERAL

This project includes metric units of measurements. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960. A number of circumstances require that both metric SI units and English inch-pound (I-P) units be included in a section of the specifications. When both metric and I-P measurements are included, the section may contain measurements for products that are manufactured to I-P dimensions and then expressed in mathematically converted metric value (soft metric) or, it may contain measurements for products that are manufactured to an industry recognized rounded metric (hard metric) dimensions but are allowed to be substituted by I-P products to comply with the law. Dual measurements are also included to indicate industry and/or Government standards, test values or other controlling factors, such as the code requirements where I-P values are needed for clarity or to trace back to the referenced standards, test values or codes.

## 1.3 USE OF MEASUREMENTS

Measurements shall be in SI units, except as otherwise authorized. Product (s) shall be procured in S-I units unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one system of units for another and for the final assembly and performance of the specified work and/or products.

## 1.3.1 Hard Metric

A hard metric measurement is indicated by an SI value with no expressed

FY01 Replacement Family Housing

FTW230

correlation to an I-P value, i.e., where an SI value is not an exact mathematical conversion of an I-P value, such as the use of 100 mm in lieu of 4 inches. Hard metric measurements are often used for field data such as distance from one point to another or distance above the floor. Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

#### 1.3.2 Soft Metric

- a. A soft metric measurement is indicated by an SI value which is a mathematical conversion of the I-P value shown in parentheses (e.g. 38.1 mm (1-1/2 inches)). Soft metric measurements are used for measurements pertaining to products, test values, and other situations where the I-P units are the standard for manufacture, verification, or other controlling factor. The I-P value shall govern while the metric measurement is provided for information.
- b. A soft metric measurement is also indicated for products that are manufactured in industry designated metric dimensions but are required by law to allow substitute I-P products. These measurements are indicated by a manufacturing hard metric product dimension followed by the substitute I-P equivalent value in parentheses (e.g., 190 x 190 x 390 mm (7-5/8 x 7-5/8 x 15-5/8 inches)).

#### 1.3.3 Neutral

A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

#### 1.4 COORDINATION

Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

#### 1.5 RELATIONSHIP TO SUBMITTALS

Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM E 380 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

-- End of Section --

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 PAYMENT

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

3.2 QUALITY CONTROL PLAN

3.2.1 Content of the CQC Plan

3.2.2 Acceptance of Plan

3.2.3 Notification of Changes

3.3 COORDINATION MEETING

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

3.4.2 CQC System Manager

3.4.3 CQC Personnel

3.4.4 Additional Requirement

3.4.5 Organizational Changes

3.5 SUBMITTALS AND DELIVERABLES

3.6 CONTROL

3.6.1 Preparatory Phase

3.6.2 Initial Phase

3.6.3 Follow-up Phase

3.6.4 Additional Preparatory and Initial Phases

3.7 TESTS

3.7.1 Testing Procedure

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

3.8.2 Pre-Final Inspection

3.8.3 Final Acceptance Inspection

3.9 DOCUMENTATION

3.10 SAMPLE FORMS

3.11 NOTIFICATION OF NONCOMPLIANCE

3.12 ATTACHMENTS

-- End of Section Table of Contents --

FY01 Replacement Family Housing

FTW230

## SECTION 01451

## CONTRACTOR QUALITY CONTROL

## PART 1 GENERAL

## 1.1 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Proposal Schedule.

## PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

## 3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all design and construction operations, both onsite and offsite, and shall be keyed to the proposed design and construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

## 3.2 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than 30 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

## 3.2.1 Content of the CQC Plan

FY01 Replacement Family Housing

FTW230

The CQC Plan shall include, as a minimum, the following to cover all design and construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with SECTION 01330 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features

FY01 Replacement Family Housing

FTW230

under a particular section. This list will be agreed upon during the coordination meeting.

### 3.2.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

### 3.2.3 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

## 3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 30 calendar days prior to the Coordination Meeting.

During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

## 3.4 QUALITY CONTROL ORGANIZATION

### 3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

### 3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the

FY01 Replacement Family Housing

FTW230

Contractor. The CQC System Manager shall be a construction person with a minimum of 5 years in related work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall have no other duties. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

#### 3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager for the following areas: electrical and mechanical. These individuals may be employees of the prime or subcontractor; be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan.

#### Experience Matrix

Area	Qualifications
a. Mechanical	Graduate Mechanical Engineer with 2 yrs experience or person with 5 yrs related experience
b. Electrical	Graduate Electrical Engineer with 2 yrs experience or person with 5 yrs related experience
c. Environmental	Graduate Environmental Engineer with 3 yrs experience

#### 3.4.4 Additional Requirement

In addition to the above experience and/or education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at the Associated General Contractors of Alaska Offices in Anchorage and Fairbanks.

#### 3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

FY01 Replacement Family Housing

FTW230

### 3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in SECTION 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

### 3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

#### 3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be



FY01 Replacement Family Housing

FTW230

performed has been accepted by the Contracting Officer.

- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

### 3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

### 3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the

FY01 Replacement Family Housing

FTW230

deficient work. The Contractor shall not build upon nor conceal non-conforming work.

### 3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

### 3.7 TESTS

#### 3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

### 3.8 COMPLETION INSPECTION

#### 3.8.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a

FY01 Replacement Family Housing

FTW230

time stated in the Special Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

### 3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

### 3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

### 3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.

FY01 Replacement Family Housing

FTW230

- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

### 3.10 SAMPLE FORMS

Sample forms enclosed at the end of this section.

### 3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected

FY01 Replacement Family Housing

FTW230

noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.12 ATTACHMENTS

CQC Report

<b>CONTRACTOR'S QUALITY CONTROL REPORT (CQC)</b> (ER 1180-1-6)		DATE	REPORT NO.
CONTRACT NO. AND NAME OF CONTRACTOR:		DESCRIPTION AND LOCATION OF THE WORK:	
<b>WEATHER CLASSIFICATION:</b> CLASS A No interruption of any kind from weather conditions occurring on this or previous shifts. CLASS B Weather occurred during this shift that caused a complete stoppage of all work. CLASS C Weather occurred during this shift that caused a partial stoppage of work. CLASS D Weather overhead excellent or suitable during shift. Work completely stopped due to results of previous adverse weather. CLASS E Weather overhead excellent or suitable during shift but work partially stopped due to previous adverse manner. OTHER Explain.		<b>CLASSIFICATION:</b> CLASS _____	<b>TEMPERATURE:</b> MAX ____ MIN ____
		<b>PRECIPITATION:</b> INCHES _____	
<b>CONTRACTOR/SUBCONTRACTORS AND AREA OF RESPONSIBILITY FOR WORK PERFORMED TODAY:</b> (Attach list of items of equipment either idle or working as appropriate.) a. _____ b. _____ c. _____ d. _____ e. _____ f. _____			
<b>1. WORK PERFORMED TODAY:</b> (Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors by letter in Table above.)    			
<b>2. TYPE AND RESULTS OF INSPECTION:</b> (Indicate whether P-Preparatory, I-Initial, or F-Followup and include satisfactory work completed or deficiencies with action to be taken.)    			
<b>3. TESTS REQUIRED BY PLANS AND/OR SPECIFICATIONS PERFORMED AND RESULTS OF TESTS:</b>    			

4. VERBAL INSTRUCTIONS RECEIVED: (List any instructions given by Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

5. REMARKS: (Cover any conflicts in plans, specifications or instructions: acceptability of incoming materials; offsite surveillance activities; progress of work, delays, causes and extent thereof; days of no work with reasons for same.)

6. SAFETY: (Include any infractions of approved safety plan, safety manual, or instructions from Government personnel. Specify corrective action taken).

CONTRACTOR: \_\_\_\_\_

CONTRACTOR'S CERTIFICATION: I certify that the above report is complete and correct and that all material and equipment used, work performed and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above.

\_\_\_\_\_  
CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE

--End of Section--

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

- 1.1 GENERAL REQUIREMENTS
  - 1.1.1 Site Plan
  - 1.1.2 Identification of Employees
  - 1.1.3 Employee Parking
- 1.2 AVAILABILITY AND USE OF UTILITY SERVICES
  - 1.2.1 Payment for Utility Services
  - 1.2.2 Meters and Temporary Connections
  - 1.2.3 Final Meter Reading
  - 1.2.4 Sanitation
  - 1.2.5 Telephone
- 1.3 BULLETIN BOARD
- 1.4 PROTECTION AND MAINTENANCE OF TRAFFIC
  - 1.4.1 Dust Control
    - 1.4.1.1 Transportation of Construction Debris
    - 1.4.1.2 Soil excavations, stockpiles and graded areas
  - 1.4.2 Barricades
- 1.5 CONTRACTOR'S TEMPORARY FACILITIES
  - 1.5.1 Administrative Field Offices
  - 1.5.2 Storage Area
  - 1.5.3 Supplemental Storage Area
  - 1.5.4 Appearance of Trailers
  - 1.5.5 Maintenance of Storage Area
  - 1.5.6 Security Provisions
- 1.6 PLANT COMMUNICATION
- 1.7 TEMPORARY PROJECT SAFETY FENCING
- 1.8 CLEANUP
- 1.9 RESTORATION OF STORAGE AREA

-- End of Section Table of Contents --



FY01 Replacement Family Housing

FTW230

## SECTION 01500

## TEMPORARY CONSTRUCTION FACILITIES

## 1.1 GENERAL REQUIREMENTS

## 1.1.1 Site Plan

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

## 1.1.2 Identification of Employees

The Contractor shall be responsible for furnishing to each employee, and for requiring each employee engaged on the work to display, identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

## 1.1.3 Employee Parking

Contractor employees shall park privately owned vehicles in an area designated by the Contracting Officer. This area will be within reasonable walking distance of the construction site. Contractor employee parking shall not interfere with existing and established parking requirements of the military installation.

## 1.2 AVAILABILITY AND USE OF UTILITY SERVICES

## 1.2.1 Payment for Utility Services

The Government will make all reasonably required utilities available to the Contractor from existing major distribution lines, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

UtilityMaximum AmountCost

FY01 Replacement Family Housing

FTW230

Water	Reasonable	\$2.7114/kGAL
Electricity	Reasonable	\$0.1032/kWH
Sewage	Reasonable	\$4.2823/kGAL
Landfill Use	Reasonable	\$7.0731/C.Y.
Steam	Reasonable	\$8.2490/kLB

#### 1.2.2 Meters and Temporary Connections

The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall provide and maintain necessary temporary connections, distribution lines, and meters required to measure the amount of each utility used for the purpose of determining charges. The Contractor shall notify the Contracting Officer, in writing, 5 working days before final electrical connection is desired so that a utilities contract can be established.

#### 1.2.3 Final Meter Reading

Before completion of the work and final acceptance of the work by the Government, the Contractor shall notify the Contracting Officer, in writing, 5 working days before termination is desired. The Government will take a final meter reading. The Contractor shall then remove all the temporary distribution lines, meters, and associated paraphernalia. The Contractor shall pay all outstanding utility bills before final acceptance of the work by the Government.

#### 1.2.4 Sanitation

The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel.

#### 1.2.5 Telephone

The Contractor shall make arrangements and pay all costs for telephone facilities desired.

#### 1.3 BULLETIN BOARD

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than 915 by 1220 mm in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

#### 1.4 PROTECTION AND MAINTENANCE OF TRAFFIC

FY01 Replacement Family Housing

FTW230

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

#### 1.4.1 Dust Control

##### 1.4.1.1 Transportation of Construction Debris

All construction debris shall be disposed of in accordance with SECTION 01015 SPECIAL ITEMS paragraph 1.8 - DISTRIBUTION OF MATERIALS. The Contractor shall ensure that each load is covered properly and that no dust is visible during transportation of the construction debris to its final location. Prevention methods shall be as outlined in SECTION 01411 ENVIRONMENTAL PROTECTION.

##### 1.4.1.2 Soil excavations, stockpiles and graded areas

The Contractor shall maintain all excavations, stockpiles and graded areas such that no dust is visible during the performance of this contract. Prevention methods shall be as outlined in SECTION 01411 ENVIRONMENTAL PROTECTION.

#### 1.4.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

#### 1.5 CONTRACTOR'S TEMPORARY FACILITIES

##### 1.5.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

##### 1.5.2 Storage Area

FY01 Replacement Family Housing

FTW230

The Contractor shall construct a temporary 1.8 m high chain link fence around trailers and materials. The fence shall include plastic strip inserts, colored green, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer away from the vicinity of the construction site but within the military boundaries. Trailers, equipment, or materials shall not be open to public view with the exception of those items which are in support of ongoing work on any given day. Materials shall not be stockpiled outside the fence in preparation for the next day's work. Mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment, shall be parked within the fenced area at the end of each work day.

#### 1.5.3 Supplemental Storage Area

Upon Contractor's request, the Contracting Officer will designate another or supplemental area for the Contractor's use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but shall be within the military boundaries. Fencing of materials or equipment will not be required at this site; however, the Contractor shall be responsible for cleanliness and orderliness of the area used and for the security of any material or equipment stored in this area. Utilities will not be provided to this area by the Government.

#### 1.5.4 Appearance of Trailers

Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the military property.

#### 1.5.5 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly.

#### 1.5.6 Security Provisions

Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own equipment; in addition, the Contractor shall notify the appropriate law enforcement agency requesting periodic security checks of

FY01 Replacement Family Housing

FTW230

the temporary project field office.

#### 1.6 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

#### 1.7 TEMPORARY PROJECT SAFETY FENCING

As soon as practical, but not later than 15 calendar days after the date established for the commencement of work, the Contractor shall furnish and erect temporary project safety fencing around the entire perimeter(s) of the work site(s). The safety fencing shall be constructed of commercially available chain link fencing material meeting the following general requirements:

- a. Height: 1.8 meters
- b. Wire Diameter: 11 gauge
- c. Material: Zinc coated steel
- d. Galvanized: 0.03 kg/square meter
- e. Fabric Opening Size: 50 mm
- f. Line posts: 38 mm O.D.
- g. Corner posts: 75 mm O.D.
- h. Rails: 38 mm O.D.

Line posts shall be placed at 3 meters on centers (maximum) and may be driven into the ground in lieu of concrete bases if soil conditions permit.

The Contractor shall install man-gates and vehicle access gates as required to meet the project requirements. The Contractor shall provide locking devices as required to ensure job site security.

All fencing material, hardware and accessories shall be appropriate for the application intended and installed as recommended by the fencing manufacturer.

The Contractor shall maintain the integrity of the fence throughout the duration of the contract. The Contractor shall immediately repair any damage to the fence as directed by the Contracting Officer's Representative.

Upon completion of, and acceptance of the work the Contractor shall remove all fencing material, posts, gates, hardware and accessories from the job site.

#### 1.8 CLEANUP

Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above or at the supplemental storage area. Stored

FY01 Replacement Family Housing

FTW230

material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

1.9 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

-- End of Section --

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01581

PROJECT MARKER

PART 1 GENERAL

- 1.1 PROJECT MARKER
- 1.2 PAYMENT

PART 2 PRODUCTS

- 2.1 MATERIALS
- 2.2 SIZE
- 2.3 FINISH
- 2.4 DECAL

PART 3 EXECUTION

- 3.1 INSTALLATION
- 3.2 MAINTENANCE
- 3.3 ATTACHMENT

-- End of Section Table of Contents --

FY01 Replacement Family Housing

FTW230

SECTION 01581

PROJECT MARKER

PART 1 GENERAL

1.1 PROJECT MARKER

The project marker shall consist of one sign. The sign shall conform to the requirements shown on attached Drawing Number 40-05-12 and the requirements specified herein. Both sides of the sign shall conform to the format on the referenced marker.

1.2 PAYMENT

No separate payment will be made for the project sign. Costs shall be considered incidental to and included in the contract price.

PART 2 PRODUCTS

2.1 MATERIALS

The panel shall be 19 mm exterior grade plywood or 1.5 mm galvanized steel sheets. Posts, rails and trim shall be wood. Paint shall be exterior type oil base paint. Nails and tacks shall be galvanized.

2.2 SIZE

The sign panel shall be a minimum of 2 meters long between posts and a minimum of 1.2 meters high between rails. Posts shall be of such length that the top of the project marker will be located a minimum of 2.4 meters above ground.

2.3 FINISH

Both sides of the sign shall be painted and lettered. Letters shall be black and background shall be white. Posts and rails shall be painted white. Letters shall be upper case block type for all lettering, except that names of major sub-contractors may be upper and lower case.

2.4 DECAL

Two decals of the "Engineer Castle", 305 mm x 216 mm in size each, will be furnished to the Contractor by the Government. One decal shall be applied to each side of the sign where indicated.

PART 3 EXECUTION

3.1 INSTALLATION



FY01 Replacement Family Housing

FTW230

Posts shall be installed in a manner which provides a firm foundation for the Contracting Officer. The sign shall be situated to provide an unobstructed view from the access road or access area.

### 3.2 MAINTENANCE

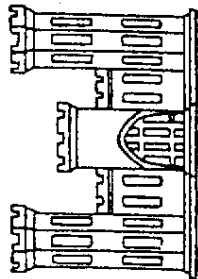
The sign shall be maintained in excellent condition throughout the life of the project. Upon completion of work, the Contractor shall remove the sign.

### 3.3 ATTACHMENT

Drawing 40-05-12, Version 2

PROJECT NAME

U. S. ARMY



CORPS OF ENGINEERS

PACIFIC OCEAN DIVISION, ALASKA DISTRICT

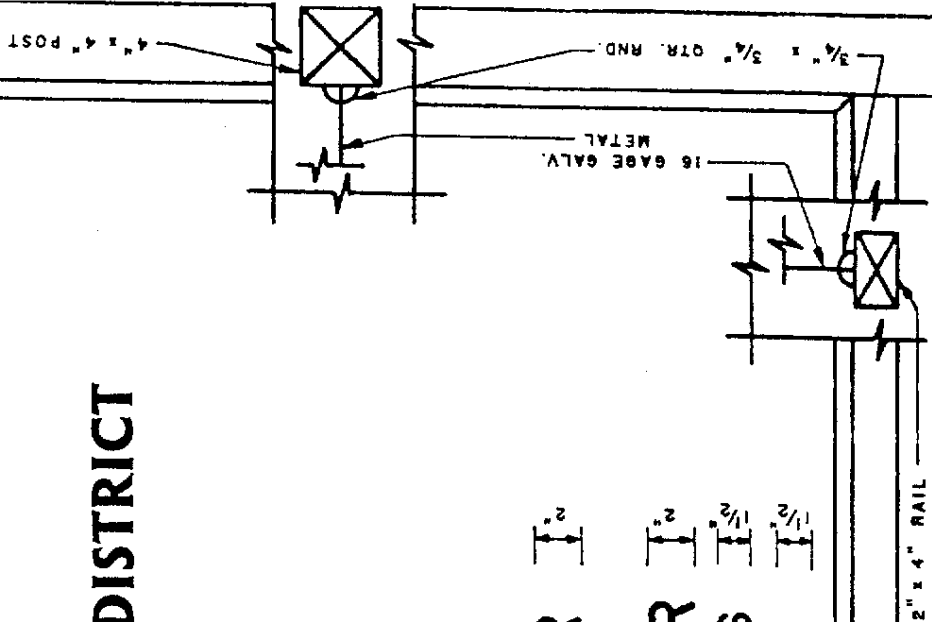
IN COOPERATION WITH

CONTRACT NUMBER

PRIME CONTRACTOR  
MAJOR SUBCONTRACTORS

NOTES:

1. ALL LETTERS TO BE BLACK ON WHITE FIELD.
2. ENGINEER CASTLE DECAL TO BE FURNISHED BY CONTRACTING OFFICER.



DWG. NO. 40-05

Version 2

--End of Section--

FY01 Replacement Family Housing

FTW230

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01720

AS-BUILT DRAWINGS

PART 1 GENERAL

- 1.1 REFERENCES
- 1.2 REQUIREMENTS
- 1.3 PRELIMINARY AS-BUILT MARKED PRINTS
  - 1.3.1 Review and Approval
  - 1.3.2 Water and Sewer Systems
- 1.4 DRAFTING STANDARDS
  - 1.4.1 Draftsmanship
- 1.5 FINAL SUBMITTAL
- 1.6 PAYMENT

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

-- End of Section Table of Contents --

## SECTION 01720

## AS-BUILT DRAWINGS

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

## STATE OF ALASKA ADMINISTRATIVE CODE (AAC)

18 AAC 72	Wastewater Disposal Regulations
18 AAC 80	Drinking Water

## 1.2 REQUIREMENTS

The As-Built drawings shall be a record of the construction as installed and completed by the Contractor. They shall include all the information shown on the contract drawings and a record of all deviations, modifications or changes from those drawings, however minor, which were incorporated into the work, additional work not appearing on the contract drawings, and changes which were made after final inspection of the contract work. Individual as-built items required to be submitted under other sections of these specifications shall also be included in the final complete set of As-Built Drawings. References to amendments (and the location indicators of those amendments) issued by the Government shall be removed from the drawings. The title block on each sheet shall reflect the Contract Number, Contractor Company Name, City, and State. Each sheet shall be labeled "AS-BLT" in a location immediately preceding the Drawing Number. The Invitation Number located below the title block shall remain unchanged. The full size mylar prints specified in paragraph FINAL SUBMITTAL shall be signed by the Prime Contractor or a representative of the Prime Contractor having full contractual authority.

## 1.3 PRELIMINARY AS-BUILT MARKED PRINTS

The Contractor shall mark up one set of paper prints to show the As-Built conditions. These As-Built marked prints shall be kept current and available on the jobsite at all times. Changes from the contract plans which are made in the work, or additional information uncovered in the course of construction, shall be accurately and neatly recorded, as they occur, by means of details and notes. No construction work shall be concealed until it has been inspected, approved and recorded. The As-Built marked prints will be jointly inspected for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of the

FY01 Replacement Family Housing

FTW230

monthly pay estimate. Failure to keep the As-Built marked prints on a current basis shall be sufficient justification to suspend pay estimates. Information to be shown on the drawings shall include, but is not limited to:

- a. The location and description of utility lines or other installations of any kind known to exist within the construction area. The locations shall be referenced by including dimensions to permanent features.
- b. The location and identification of surface installations within 100 feet of the construction work.
- c. The location and dimensions of changes within buildings or structures.
- d. Correct grade and alignment of roads, structures or utilities if changes were made from contract plans.
- e. Correct elevations if changes were made in site grading.
- f. Changes in details of design or additional information obtained from working drawings specified to be prepared or furnished by the Contractor, including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
- g. The topography and grades of drainage installed or affected as a part of the project construction.
- h. Changes or modifications which result from the final inspection.

#### 1.3.1 Review and Approval

The originals plus one copy of the preliminary As-Built marked prints shall be delivered to the Contracting Officer at the time of final inspection for review and approval. In preparing its schedule, the Contractor shall allow at least one working day for Government review of every five typical construction sheets, and one working day for review of each complex mechanical and electrical sheet. If the originals are returned for corrections, the Contractor shall make the corrections and resubmit the originals plus one copy. Upon approval, the original As-Built marked prints will be returned to the Contractor.

#### 1.3.2 Water and Sewer Systems

The Contractor shall have As-Built engineering plans for water and sewer systems approved and signed by a professional engineer registered in the State of Alaska, in accordance with current 18 AAC 80 and 18 AAC 72, respectively, such that the Alaska Department of Environmental Conservation will issue the required "Certificate to Operate".

#### 1.4 DRAFTING STANDARDS

FY01 Replacement Family Housing

FTW230

One copy of the original contract drawings on CD ROM disk(s) in AUTOCAD format will be furnished to the Contractor at the beginning of the contract. The final As-Built submittal shall be presented in AUTOCAD version 14 format on CD ROM disk(s) and on mylar prints as specified in paragraph FINAL SUBMITTAL. The original contract drawings shall be modified as may be necessary to correctly show all features of the project as it has been constructed by bringing the contract set into agreement with the preliminary As-Built prints and adding such drawings as may be necessary. Upon completion they shall be delivered to the Contracting Officer, together with the preliminary As-Built marked prints, for final approval.

#### 1.4.1 Draftsmanship

Personnel proficient in the use of computer aided drafting techniques shall be employed to modify the original contract drawings and prepare additional drawings. Additions and corrections to the original contract drawings shall be neat, clean, and legible and shall match the existing linework and/or lettering in type, density, size and style. If additional drawings are required, they shall be prepared in the same size and format as the original drawings, using the same title block, sheet numbering sequence, etc. The Contracting Officer will review all As-Built drawings for accuracy, and for conformance to the specified drafting standards. The Contractor shall make all corrections, changes, additions and deletions required to meet these standards.

#### 1.5 FINAL SUBMITTAL

The final submittal shall be made no later than 30 days following Contracting Officer approval of the preliminary As-Built marked prints. The final submittal shall be two copies on CD ROM disk(s) and two full size set of mylar prints. Two full size blue-line copy of the mylar prints shall also be provided for the Using Agency. All CD ROM disks and mylar prints will become the property of the Government upon final approval. Failure to submit As-Built drawings as required herein shall be cause for withholding any payment due the Contractor under this contract.

#### 1.6 PAYMENT

No separate payment will be made for As-Built drawings. The cost shall be included in the contract price.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

-- End of Section --

FY01 REPLACEMENT FAMILY HOUSING

FTW230

APPENDIX 1

LOCATION AND VICINITY MAPS LV-1 THROUGH LV-3

(LOCATED UNDER DRAWINGS)

FY01 REPLACEMENT FAMILY HOUSING

FTW230

APPENDIX 2

GENERAL DRAWINGS C-1 THROUGH C-4

(LOCATED UNDER DRAWINGS)